

IN THE CLAIMS

1. (Currently Amended) A method of inducing apoptosis ~~of a cell~~, comprising contacting a cell with an effective amount of an inhibitor of a glutamine transport system component agent, wherein (a) ~~the agent inhibits the uptake of glutamine by the cell~~, and (b) ~~the cell undergoes apoptosis~~.
2. (Original) The method of claim 1, wherein the cell is a carcinoma cell.
3. (Currently amended) The method of claim 2, wherein the carcinoma cell is a hepatocarcinoma cell.
4. (Currently amended) The method of claim 2 wherein the carcinoma cell is ~~in~~ comprised by a patient.
5. (Currently amended) The method of claim 3, wherein the hepatocarcinoma cell is selected from the group consisting of a PLC/PRF/5 cell, an SK-Hep cell, a Hep3B cell, a Huh-7 cell, a FOCUS cell and a HepG2 cell.
6. (Currently amended) The method of claim 1, wherein said ~~agent~~ glutamine transport system modulates a component of is the ASC a-glutamine transport system.
7. (Currently amended) The method of claim 6, wherein the inhibitor of a glutamine transport system component ~~of a glutamine transport system~~ is an inhibitor of the expression of ATB⁰.
8. (Canceled)
9. (Currently amended) The method of claim ~~[[8]]~~ 7 wherein the ~~agent~~ inhibitor of expression of ATB⁰ is ~~selected from the group consisting of an antibody, a polynucleotide, and an amino acid analog~~.

10. (Currently amended) The method of claim [[8]] 9 wherein the ~~agent is a~~ polynucleotide that ~~inhibits the expression of ATB⁰~~ is an siRNA.

11. (Canceled)

12. (Currently amended) The method of claim 10 wherein the ~~polynucleotide~~ siRNA consists essentially of a sequence set forth in ~~SEQ ID NO:2~~, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, or SEQ ID NO:6.

13. (Canceled)

14. (Currently amended) The method of claim [[12]] 10 wherein the ~~polynucleotide~~ siRNA consists essentially of a sequence as set forth in SEQ ID NO:3.

15. (Currently amended) A method of inducing apoptosis of a cell, comprising ~~contacting~~ introducing into a cell ~~with a vector which comprises a polynucleotide that encodes a~~ polynucleotide which reduces the expression of an ATB⁰ gene product, ~~wherein (a) the vector enters the cell, (b) the polynucleotide is produced in the cell.~~

16. (Withdrawn) The method of claim 15 wherein the polynucleotide comprises a sequence of at least 10 contiguous nucleotides from SEQ ID NO:1.

17. (Currently amended) The method of claim [[16]] 15 wherein the polynucleotide ~~comprises~~ consists essentially of a sequence as set forth in any one of ~~SEQ ID NO:2~~, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5 and SEQ ID NO:6.

18. (Canceled)

19. (Currently amended) The method of claim 15 wherein the polynucleotide consists essentially of the sequence as set forth in SEQ ID NO:3.

20. (Currently amended) The method of ~~any one of claims~~ [[19]] 15 wherein the cell is a hepatocarcinoma cell.

21. (Original) The method of claim 20 wherein the hepatocarcinoma cell is comprised by a patient.

22. (Currently amended) The method of claim 15 wherein the nucleic acid is an siRNA ~~vector is an adenovirus vector~~.

23. (Canceled)

24. (Currently amended) A method of treating an hepatocarcinoma comprising administering a therapeutically effective amount of an inhibitor of a glutamine transport system component ~~agent~~ to an individual in need of treatment, wherein (a) ~~the agent contacts a hepatoma cell in the individual, (b) the agent selectively inhibits the activity of an ATB⁰ of the hepatoma cell, (c) glutamine uptake by the hepatoma cell is significantly reduced, and (d) the therapeutically effective amount of the inhibitor induces apoptosis in a~~ the hepatoma cell comprised by the hepatocarcinoma ~~undergoes apoptosis~~.

25. (Canceled)

26. (Withdrawn) A method of diagnosing cancer in a patient comprising obtaining a sample from the patient, determining the amount of ATB⁰ in the sample, and predicting whether a carcinoma is in the patient based upon a higher than normal level of ATB⁰ in the sample.

27. (Withdrawn) The method of claim 26 wherein the carcinoma is a hepatoma.

28. (New) The method of claim 24, wherein the inhibitor of a glutamine transport system is an siRNA.

29. (New) The method of claim 28, wherein the siRNA consists essentially of the sequence set forth in SEQ ID NO: 3.